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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,590	09/10/2003	Karl-Ernst Mack	2002DE313	5263
7590	02/25/2005		EXAMINER	
Clariant Corporation Industrial Property Department 4000 Monroe Road Charlotte, NC 28205			KEYS, ROSALYND ANN	
			ART UNIT	PAPER NUMBER
			1621	

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/659,590	MACK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rosalyn Keys	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 August 2004.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

*Status of Claims*

1. Claims 1-15 are pending.

Claims 1-15 are rejected.

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being Unpatentable over Wolfram (US 4,847,709) in view of Nakayama et al. (US 4,289,918), for the reasons given in the previous office action, mailed March 25, 2004. Further, although Wolfram do not exemplify obtaining a p/o- ratio of at least 3:1, Wolfram do teach that the use of a chlorinated 2,8-dimethylphenoxathiin as co-catalyst will produce a p/o- ratio of usually above 1.6 (see column 4, lines 3-29). Thus, obtaining a ratio of at least 3:1 is suggested by Wolfram.

*Response to Arguments*

5. Applicant's arguments filed August 25, 2004 have been fully considered but they are not persuasive.

The Applicants argue that one with ordinary skill in the art having a knowledge of Wolfram and Nakayama, would not enjoy any reasonable expectation of success that the claimed method maximizes the yield of 4-chloro- 1, 2-dimethylbenzene rather than the 3-chloro- 1, 2-dimethylbenzene. Specifically, the prior art suggests directly that the opposite will transpire, namely the favoring of the 3-chloro- 1,2-dimethylbenzene to the disadvantage of the 4-chloro isomer. In fact, the combined teaching of the references, and that which is known by

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one with ordinary skill in the art, teach away from the instant invention, as all indications of the prior art suggests that the 3-chloro- 1,2-dimethylbenzene would be formed to the detriment of 4-chloro -1, 2-dimethylbenzene.

The Examiner disagrees. Wolfram specifically teaches that the object of his invention is to improve the ring chlorination of toluene further in favor of the formation of p-monochlorotoluene (see column 3, line 60 to column 4, line 2). Thus, contrary to Applicants arguments the prior art desires to obtain more of the 4-isomer and less of the 3-isomer. In fact, Wolfram teaches that an increase in the p-monochlorotoluene share by as little as 0.5% is of high economic value. Further, Wolfram teaches that this object is achieved by the use of a chlorinated 2,8-dimethylphenoxythiin (see column 4, lines 3 and 4). Thus, Wolfram obtains an increase in the p/o- ratio by the same means as Applicants, i.e., the use of a chlorinated 2,8-dimethylphenoxythiin. The only difference between the instant claims and the invention of Wolfram is that Wolfram chlorinates toluene, whereas the Applicants chlorinate xylene. However, Nakayama et al. teach that the chlorination of xylene is similar to the chlorination of toluene in the presence of a phenoxythine compound. Thus, one having ordinary skill in the art at the time the invention was made would reasonably believe that based upon the teachings of Nakayama et al. that substitution of xylene for toluene in the process of Wolfram would also result in an increase in the p/o- ratio.

For the above reasons the rejection of claims 1-15 under 35 U.S.C. 103(a) as being Unpatentable over Wolfram (US 4,847,709) in view of Nakayama et al. (US 4,289,918) is maintained.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynd Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M and F 3:00-8:00 pm and T-Th 5:30-10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rosalynd Keys  
Rosalynd Keys  
Primary Examiner  
Art Unit 1621

February 20, 2005